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## CLAIMS:

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1. An optically readable record carrier having at least one information layer, wherein information is encoded in an information structure comprising track-wise arranged information areas which alternate in the track direction with intermediate areas, characterized in that the information layer comprises means for directing radiation of a read beam, which is  
10 perpendicularly incident on the information layer, in a direction at an acute angle to the chief ray of the incident beam.

2. An optical record carrier as claimed in claim 1, characterized in that said means are constituted by a surface profile of the information layer, which profile comprises  
15 first surface portions having a first inclination with respect to the normal in the center of the record carrier, said first surface portions alternating with second surface portions having a second inclination opposed to the first inclination.

3. An optical record carrier as claimed in claim 2 having a disc shape,  
20 characterized in that the surface profile extends in the radial direction of the disc.

4. An optical record carrier as claimed in claim 3, characterized in that the surface profile is a sawtooth profile.

25 5. An optical record carrier as claimed in claim 3, characterized in that the surface profile is a triangular profile.

6. An optical record carrier as claimed in claim 1, characterized in that said means are constituted by a grating having a grating pitch larger than the pitch of the  
30 information structure.

7. An optical record carrier as claimed in claim 6, characterized in that the grating comprises a structure of alternating first regions having a first refraction coefficient

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and second regions having a second refraction coefficient different from the first refraction coefficient.

8. An optical record carrier as claimed in claim 6, characterized in that the  
5 grating comprises a structure of alternating first regions having a first height and second regions having a second height different from the first height.
9. An optical record carrier as claimed in claim 6, characterized in that the  
10 grating comprises first surface portions having a first inclination with respect to the normal in the center of the record carrier, which first surface portions alternate with second surface portions having a second inclination opposed to the first inclination.
10. A scanning device for scanning an information plane, which device comprises  
15 a radiation source for supplying a scanning beam, an objective system for focusing the scanning beam which is perpendicularly incident on the information plane in a scanning spot, an object holder for holding the object, and a radiation-sensitive detection system for converting radiation from the information plane into an electrical signal, characterized in that  
20 it comprises a plate arranged to cover the information plane during a scanning action, which plate is provided with means for directing scanning beam radiation from the information plane in a direction at an acute angle to the chief ray of the incident scanning beam.
11. A scanning device as claimed in claim 10, characterized in that said means are  
constituted by a surface profile of the plate, which profile comprises first surface portions  
25 having a first inclination with respect to the normal to the plate, said first surface portions alternating with second surface portions having a second inclination opposed to the first inclination.
12. A scanning device as claimed in claim 11, characterized in that the surface  
profile is a sawtooth profile.
- 30 13. A scanning device as claimed in claim 11, characterized in that the surface  
profile is a triangular profile.

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14. A scanning device as claimed in claim 10, characterized in that said means are constituted by a diffraction grating.